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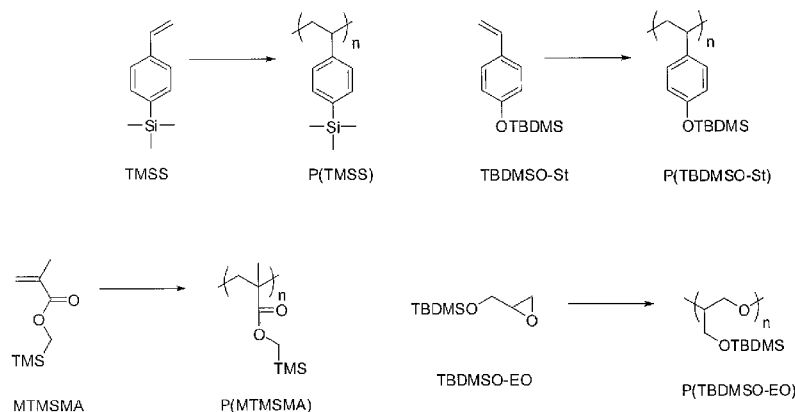
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(54) **Title:** POLYACTIDE/SILICON-CONTAINING BLOCK COPOLYMERS FOR NANOLITHOGRAPHY

FIGURE 1



(57) **Abstract:** The present invention includes a diblock copolymer system that self-assembles at very low molecular weights to form very small features. In one embodiment, one polymer in the block copolymer contains silicon, and the other polymer is a polyactide. In one embodiment, the block copolymer is synthesized by a combination of anionic and ring opening polymerization reactions. In one embodiment, the purpose of this block copolymer is to form nanoporous materials that can be used as etch masks in lithographic patterning.